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7 September 1983

MEMORANDUM FOR: Associate Deputy Director for Administration

FROM: [   ]   25X1
                  Director of Training and Education

SUBJECT: FY 1986 Research and Development Program

1.   OTE continues to give the strongest possible support to the FY
1985 ORD New Initiative entitled "Language School Upgrade." It is
our understanding that this initiative will be re-submitted for
for FY 1986. In view of ORD's request for broader, more generic
long-range requirements, we would like to see this package
incorporate additional functional areas within OTE. Given the
time range being dealt with (an operating system available
1989/1991), Computer Based Education (CBE) is envisioned to play a
significant role in many of OTE's programs. The Language School
program has been usJd as a test bed through which OTE can
determine applicability in other areas.

2.   If the Language School Upgrade is funded, OTE intends to build
upon the resulting system to work toward integrating CBE
curriculum into areas such as computer skills training, clerical
skills training, management and supervisory skills training, as
well as in simulations for operational and analytical skills
training. CBE could also play an important role in expanding the
effectiveness of the Self-Study Program. The possibilities which
exist for decentralized training via the Agency's main computer
network include not only initial skills training, but also one-
topic mini tutorials, and refreshers or updates of previous
training.

3.   The integration of CBE throughout OTE would resolve many of
the time, travel, and space problems encountered in our present
instructional environment. Since CBE is a relatively new field,
the technology is currently in a developmental phase, and there
are several problems which must be addressed. The major
difficulties to be overcome include adapting the technology to
meet the Agency's specific needs, retraining instructors to enable
them to effectively incorporate CBE into the curriculum, and the
expanding of the computer network to make it more accessible to

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students.

4. In order to overcome these problems the following resources will be needed:

a) Staff will be needed to manage a CBE Learning Center at C of C and HQS. While such a group would primarily be involved in monitoring courseware development being conducted on contract, provision must also be made for obtaining expertise specific to CBE development, for insuring adequate support/clerical assistance, and for incorporating a research and development effort that would focus on the effectiveness and continuing improvement of existing courseware.

b) Upgraded computer equipment will be needed to handle the more sophisticated courseware and the larger numbers of students. The equipment should be capable of handling courseware which utilizes artificial intelligence approaches. Development of the networking system of existing Agency terminals will be needed to facilitate the delivery of instructional material from a computer dedicated to CBE. Some of the curriculum will involve interactive video and audio material for which videodisk playback machines will be required.

c) Most courseware is likely to be developed by contractors based upon OTE-prepared work statements. It is essential that as a part of this development, Agency personnel be provided with an authoring system and training in its use so that CBE can be integrated into a dynamic curriculum. Courseware development, particularly that which goes beyond the "drill and practice" mode and which includes interactive video support, is expensive.

5. The need for and interest in CBE is growing within OTE, as it is in the rest of the government and the academic world. A comprehensive plan needs to be drawn up by a team of CBE experts that will guide the Agency into the methical development of an appropriate program. Given the likelihood of uncertain human resources for training in the future and the growing need for flexible delivery of training at dependable levels of mastery, a serious outlay of resources for CBE development is essential.

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